

18 displacing said other panel upwardly into engagement with the plate leveler to
19 capture the outwardly projecting portion of the joining member in the vertical slot of said
20 other panel,

21 securing the other panel to the overhead support, and

22 securing the other panel to the plate leveler.

1 24. (Original) A method of joining foam core panels as in claim 23 wherein

2 said panels each comprise a top rail, and

3 the step of securing the one panel to the overhead support comprises threading at
4 least one screw through the overhead support and into the top rail of the one panel,

5 the step of securing the other panel to the overhead support comprises threading at
6 least one screw through the overhead support and into the top rail of the other panel, and

7 the steps of securing the leveler plate the one panel and to the other panel comprise
8 threading screws into said one plate and said other plate, respectively.

1 25. (Original) The method of joining foam core panels as in claim 23, wherein

2 the step of securing the plate leveler to the one panel is performed after the step of
3 inserting the joining member into the slot of the one panel and before the step of mounting
4 the one panel on the overhead support.

1 26. (Original) A method of joining foam core panels as in claim 23 wherein

2 said one panel further comprises a bottom rail and the slot in said panel extends
3 from the top of the panel and terminates at the bottom rail, and
4 comprising the further step of disassembling the panels so joined, by means of the
5 following steps,
6 unsecuring said other panel from the overhead support,
7 unsecuring said other panel from the plate leveler, and
8 displacing said other panel downwardly to withdraw the joining member from the
9 slot in said other slot, as downward frictional forces on the joining member are resisted by
10 the bottom rail of the one panel.

Claims 27, 28 (Cancel)

1 29. (Original) A method of joining foam core panels,
2 where each panel has a vertical edge face adapted to be engaged by the edge face
3 of the other panel, and each of the vertical edge faces has a vertical slot
4 formed in the respective edge faces thereof, and at least the lower and upper
5 end portions of the bottoms of said slots are undercut to define retaining
6 surfaces,
7 comprising the steps of
8 inserting a joining member into the lower end portion of the slot in one of said
9 panels, said joining member have a retaining surface engageable with the undercut surface
10 of the portion of the slot into which it is inserted, said joining member also projecting
11 outwardly from the vertical edge face of said one panel,

12 inserting an alignment strip into the slot in said one panel, said alignment strip being
13 disposed above said joining member and having a portion of uniform thickness projecting
14 beyond the edge face of said one panel,

15 positioning the other of said panels with its edge face in opposed, spaced
16 relationship from the vertical edge face of said one panel, and with the lower end of the
17 other panel above the upper end of the joining member projecting from the one panel,
18 displacing the other panel toward the one panel, to bring their vertical edge faces
19 into engagement and simultaneously introduce the alignment strip into the vertical slot of
20 the other panel,

21 after the edge faces are engaged, displacing the other panel downwardly to capture
22 the joining member in the lower end portion of the vertical slot in the other panel, said
23 joining member having second positioning surfaces which are thereby engaged with the
24 undercut retaining surfaces of the slot in the other panel, and

25 inserting a second joining member in the upper end portions of the slots of the two
26 panels, said second joining member having opposed retaining surfaces which are thereby
27 engaged with the undercut portions of the slots.

1 30. (Original) A method for customizing foam core panels

2 that are to be connected by joining members having opposed retaining surfaces that
3 are engageable with retaining surfaces provided by undercut slots formed longitudinally of
4 abutting edge faces of joined panels,

5 comprising the steps of
6 marking a foam core panel to indicate the portion of the panel that must be
7 removed to provide a desired panel length for a given installation,
8 removing the portion of the panel required to provide a desired panel length, and in
9 so doing providing a freshly cut edge face on the panel, and
10 forming an undercut slot longitudinally of said freshly cut edge face.

1 31. (Original) A method of customizing foam core panels as in claim 30, wherein
2 the removing step is performed through the use of a portable, electrically powered
3 saw, and
4 the step of forming a slot is performed through the use of a portable, electrically
5 powered router,
6 whereby the customizing can be done on the installation job site.

1 32. (Original) A method of customizing foam core panels as in claim 31, wherein
2 the step of forming said longitudinal slot comprises
3 a first pass with a straight router bit to form the outer portion of said slot, and
4 a second pass with a router bit with forms the undercut portion of said slot.

1 33. (New) An assembly of foam core panels comprising a pair of panels in joined
2 relation wherein

3 each panel comprises
4 a foam slab of foamed plastic material having opposed lateral surfaces spaced
5 apart by the thickness of the slab,
6 the lateral surfaces of the panel being defined at least in part by the
7 lateral surfaces of the slab, and
8 veneers, respectively bonded to the lateral surfaces of the panel,
9 said panels having, respectively, abutting surfaces in engaged relation with each
10 other; and
11 means for joining said panels with said abutting surfaces held in engaged relation,
12 characterized in that the joining means comprise
13 slots formed, respectively, in said foam slabs, said slots extending inwardly from said
14 abutting surfaces,
15 each slot being undercut to form retaining surfaces facing away from the
16 abutting surface in which it is formed, and
17 a joining member inserted into said slots,
18 said joining member having retaining surfaces respectively engaging the retaining
19 surfaces of said slots,
20 thereby maintaining the panels in joined relation with said abutting surfaces
21 maintained in abutting engaged relation.

1 34. (New) An assembly of foam core panels as in claim 33 wherein
2 each abutting surface comprises a side edge face of the panel defined by said slab
3 and the veneers secured thereto;

1 35. (New) An assembly of foam core panels as in claim 33, wherein
2 said panels have a rectangular configuration and are vertically disposed, and further
3 wherein
4 each of said panels further comprises a top rail overlying said slab and coextensive
5 with the top surface thereof and a bottom rail underlying said slab and coextensive with the
6 bottom surface thereof,
7 disposed, and
8 the joining means further comprise
9 undercut slots formed in said top and bottom rails as continuations of the undercut
10 slots in said foam slab, and the joining member extends into the undercut slots formed in
11 said top and bottom rails,
12 whereby the forces imposed on the foam slabs in maintaining the panels in joined
13 relation are minimized.

1 36. (New) An assembly of foam core panels as in claim 3 further characterized in
2 that
3 the outer veneers disposed on opposite side faces of the core are also coextensive

4 with the side faces of the top and bottom rails,

5 and further wherein

6 the top rails of the joined panels form a first set of rails and the bottom rails of the
7 joined panels form a second set of rails, and further wherein the ends of the undercut slots

8 in one set of rails extend from the slab to a horizontal surface of said one set of rails, and

9 further wherein a veneer is secured to each of said horizontal surfaces of said one
10 set of rails,

11 thereby concealing the ends of the slots in said one set of rails from view.

1 37. (New) An assembly of foam core panels as in claim 36 wherein

2 means are provided in at least one of said top rails for connecting the panels to an
3 overhead support; and

4 said one set of rails are bottom rails.

1 38. (New) An assembly of foam core panels as in claim 33 further characterized in

2 that

3 the slots extending inwardly from the abutting faces of the panels, extend inwardly
4 at right angles thereto, and

5 the bottoms of the slots are undercut to form said slot retaining surfaces.

1 39. (New) An assembly of foam core panels as in claim 38 wherein

2 the joining member has

3 a relatively narrow, central web which is snugly received by the portions of

4 the T-shaped slots adjacent the abutting surfaces, and

5 thickened outer ends at its opposite ends, on which the retaining surfaces of

6 the joining member are formed.

1 40. (New) An assembly of foam core panels as in claim 34 wherein

2 said panels have a rectangular configuration and are vertically disposed, and further

3 wherein

4 the panels are angularly disposed, one relative to the other,

5 the abutting surfaces are mitered to compositely define the angled relation between

6 the panels, and

7 the portions of the slots adjacent the abutting surfaces are aligned and

8 the joining member has a central web which is snugly received by the portions of

9 the slots which are adjacent the abutting surfaces.

1 41. (New) An assembly of foam core panels as in claim 40 wherein

2 the outer end portions of the slots are aligned and

3 the bottom portions of the slots are tapered toward each other from the widest

4 portions of the retaining surfaces, thereby minimizing the material removed in forming said

5 slots.

1 42. (New) An assembly of foam core panels as in claim 34 wherein
2 said panels have a rectangular configuration and are vertically disposed, and further
3 wherein
4 the panels are angular disposed one relative to the other,
5 the abutting surfaces are mitered to compositely define the angled relation between
6 the panels, and
7 the portions of the slots adjacent to the abutting surfaces are angularly disposed to
8 each other and the
9 the joining member has a central web which is angled to be received by outer
10 portions of the slots.

1 43. (New) An assembly of foam core panels as in claim 33 wherein
2 an angled camming surface is provided on the joining member at one end thereof,
3 said camming surface being adapted to draw said panels toward each other when the
4 joining member is slid lengthwise into said slots, as the panels are being joined.

1 44. (New) An assembly of foam core panels as in claim 33 wherein
2 the volume of material in the joining member is minimized by passageway means

3 extending longitudinally thereof.

1 45. (New) An assembly of foam core panels as in claim 33 wherein
2 the volume of material in the joining member is minimized by the retaining surfaces thereof
3 being defined by longitudinally extending, thin walled portions.

1 46. (New) An assembly of foam core panels as in claim 45 wherein
2 the joining member comprises
3 a longitudinally extending, relatively thin, solid, central section and
4 longitudinally extending, thin walled portions at the opposite sides of
5 the central section,
6 the thin wall sections extend outwardly from the planes of the opposite sides
7 of the central section, to define the said retaining surfaces and then are
8 angled, on opposite sides of the central section away from the central
9 section and toward each other.

1 47. (New) An assembly of foam core panels as in claim 33 wherein
2 the panels are angularly disposed one to the other,
3 one of said abutting surfaces comprises a side edge face of one of said panels as
4 defined by the slab thereof and the veneers secured thereto;
5 the other vertical abutting surface is comprises a portion of the lateral surface the

6 other panel.

1 48. (New) An assembly of foam core panels as in claim 33, wherein
2 set slots comprise a first set of slots and
3 the means for joining the panels further comprise
4 a second set of slots formed, respectively, in said foam slabs generally parallel to the
5 first set of slots,
6 said second set of slots comprising second slots extending inwardly from said
7 abutting surfaces thereof,
8 each second slots being undercut to form retaining surfaces facing away from
9 the abutting surface in which it is formed, and
10 a second joining member inserted into said second slots,
11 said second joining member having retaining surfaces respectively engaging the
12 retaining surfaces of said second slots.

1 49. (New) An assembly of foam core panels as in claim 48, wherein
2 the second joining member has the same cross section as the first mentioned joining
3 member.

1 50. (New) An assembly of foam core panels as in claim 33, wherein
2 the retaining surfaces of the slot are defined by a solid resinous polymer material.

1 51. (New) A method of forming retaining surface defining slots in foam core panels
2 that are to constitute an assembly, wherein abutting surfaces of the panels are engaged in
3 joined relation, wherein

4 each panel comprises

5 a foam slab of foamed plastic material having opposed lateral surfaces spaced
6 apart by the thickness of the slab,

7 the lateral surfaces of the panel being defined at least in part by the

8 lateral surfaces of the slab, and

9 veneers, respectively bonded to the lateral surfaces of the panel,

10 said method comprising the steps of

11 forming a slot in said foam slabs, with the slot extending inwardly from an abutting
12 surfaces, said slot being formed with an undercut to provide a retaining surface facing away
13 from the abutting surface in which the slot is formed,

14 providing a liner of plastic polymer material having plastic memory, said liner being
15 formed with an outline that corresponds to the outline of the slot, but is angularly divergent
16 relative thereto,

17 coating the outer surface portions of the liner with an adhesive,

18 forcing said liner through the opening of said slot to the bottom thereof in a fashion
19 that enables the plastic memory of the polymer material to bring the adhesive coated
20 surfaces of the liner into engagement with the surfaces of the slot,

21 whereby a solid resinous polymer, wear resistant retaining surface is provided for the
22 slot.

1 52. (New) An assembly of foam core panels as in claim 33, which forms a valance,
2 said assembly further comprising
3 means for mounting each of said pair of panels from overhead support means and
4 a plate leveler secured to the top surfaces of the joined panels and providing the
5 primary means for horizontally aligning the panels thereby providing an accurate horizontal
6 alignment, therebetween, irrespective of any horizontal misalignment in the means for
7 mounting said panels from the overhead support means.

1 53. (New) An assembly of foam core panels as in claim 52, wherein
2 each panel comprises a top rail which
3 is engaged by the means for mounting the panels from the overhead support
4 means, and
5 to which the plate leveler is secured.

1 54. (New) An assembly of foam core panels as in claim 53 wherein
2 at least one of said panels has a bottom rail,
3 the slot in said one panel extends through the top rail, downwardly through the
4 foam core and terminates at the top of the bottom rail,

5 whereby, when the assembly is dismantled, the one panel may remain mounted,
6 and the other panel may be lowered to disengage it from said one panel, and the bottom
7 rail resists the downward force on the joining member during such removal.

1 55. (New) An assembly of foam core panels as in claim 33, wherein
2 said panels have a rectangular configuration and are vertically disposed, and further
3 wherein
4 the panels have a substantial height,
5 the joining member is disposed in the lower end portions of said slots, and
6 further comprising
7 an alignment strip disposed in said slots above said joining member, said alignment
8 strip having a thickness approximating the width of the slots adjacent the abutting surfaces to
9 thereby maintain the panels in aligned relation, and
10 a second joining member disposed in the upper end portions of said slots, said
11 second joining member having retaining surfaces respectively engaging the retaining surfaces
12 of at the upper end portions of said slots, thereby maintaining the upper end portions of the
13 panels in joined relation.

1 56. (New) An assembly of foam core panels as in claim 55, wherein
2 the upper surfaces of the panels are recessed and
3 the upper end portion of the upper joining member is disposed in said recess, and

4 the upper end portion of the upper joining member has a finger grip for facilitating
5 its removal in disassembling said joined panels.

1 57. (New) An assembly of foam core panels as in claim 55, wherein
2 each of said panels further comprises a top rail and a bottom rail for providing
3 structural integrity to the panels.